philosophical discussion of the various topics indicated above. Controversial matter is given brief consideration, and the writer's authoritative views given clearly and concisely. Embryology and morphology are considered in the usual way, but the work is made interesting by the discussion of the function of the various cells and cell groups under both normal and pathological conditions. If the reader seeks for immediately practical points in this book he will be disappointed, but if he seeks for enlightenment as to the broader significance of the function of blood cells and of their various changes in form and number he will be entertained and instructed by almost every paragraph. The book contains little that is original that has not appeared in monographs and other publications, but it is up to date in every particular.

H. T. K.

IMMUNITY. By JULIUS CITRON, M.D., Assistant at the University Clinic of Berlin, Medical Division. Translated from the German and edited by A. L. GARBAT, M.D., Assistant Pathologist, German Hospital, New York. Pp. 209, 27 illustrations, 2 colored plates, and 8 charts. Philadelphia: P. Blakiston's and Co., 1912.

GARBAT has presented with some additions an English translation of a work well known in Germany, the author of which, by reason of his extensive research and wide experience as a teacher, has treated his field with fulness and precision. Citron's manual on *Immunity* is at once a hand-book for the laboratory worker, and on account of its illuminating discussion of principles, a reference work for the clinician.

The book is so arranged that the physician even slightly familiar with the methods of the laboratory may learn the details of the various reactions and their significance. Methods which are used for diagnostic, therapeutic, and prophylactic purposes are discussed. There are also included fundamental considerations of immunity problems from a theoretical standpoint.

As a text-book, Citron's work is orderly and the text clear. The results of the various methods are presented critically. The beginning of the book is occupied with a discussion of the principles underlying immunity problems and a detailed description of laboratory technique. Then follows an account of active immunity with details of vaccination against small-pox, rabies, and typhoid fever. A large portion of the book is devoted to the important subjects of immunity against tuberculosis and syphilis, the account of the nature of the immunity acquired after tuberculin injections being of particular interest. It is rather astonishing to observe that the author regards the ophthalmoreaction with so much favor.

The subjects of toxins, agglutinins, precipitins, bacteriolysins, and hemolysins are duly considered in accordance with the present state of knowledge regarding them. The discussion of toxins includes those derived from the higher plants and animals as well as from bacteria. The translator has somewhat revised the chapter on vaccines, and elaborated it to conform more closely to the most recently advocated views of Sir A. E. Wright. It is interesting to read that Wright does not insist so strongly as formerly on the determination of the opsonic index during vaccine treatment, and that Matthews, one of his assistants, states that in many cases, such determination is quite out of the question.

The consideration of immunity against the meningococcus seems brief, in view of the importance of the subject. Anaphylaxis too is little more than mentioned. The illustrations are adequate, the colored plates most excellent, and the experiments cited are accompanied by elaborate protocols. H. G. S.

Diagnostic Methods. By Ralph W. Webster, M.D., Ph.D., Director of the Chicago Clinical Laboratory. Second Edition. Pp. 682; 37 Colored Plates and 164 Other Illustrations. Philadelphia: P. Blakiston's Son & Co., 1912.

The second edition of Webster's *Diagnostic Methods* is an admirable hand-book for the laboratory, remarkable for its thoroughgoing character and conciseness. The selection of methods is wide and their description clear, the author emphasizing always the fact that laboratory results can be properly interpreted only in their relation to clinical phenomena. Much has been rewritten since the first edition, certain features eliminated, and many recent laboratory researches of proved value added. Among the latter may be noted the antiformin method for tubercle bacilli; Neubauer and Fischer's glycl-tryptophan reaction; Kendall and Day's method for isolating typhoid bacilli from the feces; Benedict and Bang's tests for glucose in urine; Wright and Kinnicut's method of counting the blood plates; Folin's newer methods for urinary sulphur compounds; the formalin method for ammonia in urine; colloidal nitrogen; the phenol sulphonephthalein test for functional activity of the kidneys; Noguchi's method for cultivating the spirochæta pallida; the tuberculin and luetin reactions; Noguchi's butyric acid test. The Wassermann reaction with its modifications is treated at length, and the section on serum pathology has been considerably enlarged. The book is well printed, of convenient size, and the numerous illustrations and plates are adequate. H. G. S.